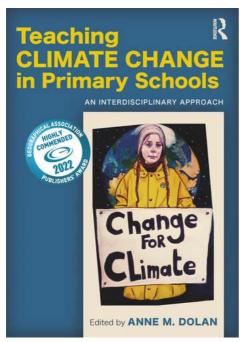
TEACHING CLIMATE CHANGE IN PRIMARY SCHOOLS: AN INTERDISCIPLINARY APPROACH

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Dolan, A M (ed) (2022) *Teaching Climate Change in Primary Schools: An Interdisciplinary Approach*, London: Routledge.



book is a welcome This contribution to the field of climate change education (CCE). It adds to emerging literature in this discipline that provides not only a broad conceptual framework for teaching and learning about the climate crisis but demonstrates with concrete proposals how education can respond to the crisis. It will be a valuable resource for teachers in primary schools who might be looking for a comprehensive and wellstructured guide on how to incorporate climate change in their classrooms. The book covers a wide range of topics

relevant to the climate crisis from very different disciplines and subjects while providing creative and innovative teaching ideas to engage children across the different ages of primary school and foster their appreciation for nature as well as their sense of agency to protect it.

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The book is structured in four broad sections. The first one examines the theoretical underpinning of teaching climate change and how climate change could be integrated into the curriculum. The first section is a useful resource for teachers who might struggle to identify how they could integrate climate change within their subject area (chapter two) but also to have a sense of the methodological approaches in the classroom that can be used when this integration takes place (chapter three). In this first section, the book also argues for the need to start as early as possible teaching climate change (chapter five) highlighting why and how early childhood can be well-placed to foster positive dispositions as well as a personal and collective sense of agency among children to engage with climate change as a subject.

The second section of the book focuses on literacy-based approaches to teaching climate change, including the use of picture books, storytelling and language. The chapters in this section identify different skills that learners can develop as a result of engaging with climate change through literacy, including critical thinking, creativity, problem-solving, intercultural awareness and communication skills all of them essential to empower children to act in the face of the climate crisis. These two first sections of the book, and the examples provided in them, emphasise the need for an approach to teaching about the climate crisis that is reflexive, dialogical and contextual. The third section focuses on STEAM (Science, Technology, Engineering, Arts and Mathematics) proposals to teach climate change, including challenges to foster students' knowledge but also actions (chapter nine), outdoor learning that promotes community engagement beyond the classroom (chapter ten), projectbased learning to develop design thinking (chapter eleven) and visual art projects designed to encourage an ecological mindset. The fourth and final section of the book examines climate change in the context of social science disciplines such as geography, history, citizenship but also drama and physical education. The last chapter encapsulates a common thread across the book by presenting the need for a pedagogy of hope when teaching climate change by looking at solutions, individual and collective capacity for action and reimagining different futures. The chapters in this section emphasise the importance of making connections between climate action and students'

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everyday lives and encourage teaching and learning in other relevant spaces for them (their communities, their families, and so on).

The structure of the book facilitates the alignment of climate change as a transversal topic with subjects of the primary school curriculum through webbed and nested models of curriculum integration (see full explanation in chapter two). However, by making explicit the integration process they followed, the authors are facilitating the replication of this process and providing a blueprint for other educators at different levels (e.g. secondary school and higher and further education) and in different contexts with different curricula. Furthermore, some of the proposed lessons and activities could be adapted and implemented outside formal education and benefit practitioners in working on climate change education and its impact on global injustices, dominant economic discourses and power structures.

Overall, the book is a great resource for teachers and student teachers to address key challenges in climate change education. The first challenge relates to the socio-scientific nature of climate change which requires critical thinking to fully grasp the social, environmental and scientific dimensions intertwined (Oberman and Martinez Sainz, 2021). The chapters in the book show how teachers can address misconceptions about climate change by helping students to engage with and understand the scientific evidence and potential personal and social impacts. A second challenge emerges from the emotional responses since teaching about the climate crisis often elicits 'feelings of despair, powerlessness, guilt and denial' (Bryan, 2020: 10). The book addresses this challenge by demonstrating how educators can navigate the difficult task of presenting the reality of climate change, and understand the full scope and implications for the future without increasing despair and helplessness among students, but on the contrary, emphasise the need for hope and action. A final challenge is to develop cross-disciplinary and contextual approaches in climate change education (Kagawa and Selby, 2010), something that the ideas presented in this book successfully achieve. Overall the book illustrates how to teach climate change in an age-appropriate manner, through multiple disciplines in a way that empowers children from early on. It

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acknowledges that students are active citizens that have a significant role to play in the mitigation and adaptation efforts in the climate crisis.

This book is an accessible text with innovative examples for climate change education and can benefit not only the intended audience of primary school teachers, student teachers and teacher educators. The emphasis on agency and hope across the chapters are relevant not only for CCE but also for development education (DE), education for sustainable development (ESD), human rights education and other adjectival educations. Dolan's edited collection can help educators in these areas looking to design and implement relevant interventions and projects to incorporate climate change in their lessons and classrooms..

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